

Notice of Allowability

Application No.

09/294,663

Examiner

Medina A Ibrahim

Applicant(s)

GRANDOS ET AL

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of 01/13/04.
2. ☒ The allowed claim(s) is/are 3, 5, 7, 10 and 20-22, renumbered as 1-7, respectively.
3. ☒ The drawings filed on 19 April 1999 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <input type="checkbox"/> Notice of References Cited (PTO-892) | <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>02-04</u> . |
| <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | <input type="checkbox"/> Other |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In The Title:

In the title, "NOVEL" has been deleted.

In The Specification:

On page 1 of the specification, line 6, ---, now US PAT 6, 187, 558--- has been inserted before the period.

In The Abstract

The abstract on page 60 has been replaced with the following:

-----The invention represents the disclosure of an insect intestinal mucin (IIM) protein. The IIM protein was been identified and cloned using *Trichoplusia* ni larva. The cDNA and amino acid sequences have been determined and are disclosed. These sequences are useful for the production of transgenic cells, including plant cells, having insecticidal activity-----

In The Claims :

Claim 3 (Currently amended). A recombinant DNA sequence comprising a nucleic acid sequence [DNA sequence that codes for an IIM protein] encoding an

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invertebrate intestinal mucin (IIM) protein; wherein the [a] nucleic acid sequence [of said recombinant DNA sequence] is selected from the group consisting of:

a) [a cDNA sequence as shown in] SEQ ID NO: 1; and

b) [a cDNA sequence as shown in] SEQ ID NO: 2.

Claim 5 (Currently amended) The recombinant DNA sequence of claim 3, wherein said IIM protein has an amino acid sequence selected from the group consisting of :

a) [an amino acid sequence as shown in] SEQ ID NO: 3; and

b) [an amino acid sequence as shown in] SEQ ID NO: 4.

Claim 7 (Currently amended). An [gene] expression vector containing a recombinant DNA sequence encoding *Trichoplusia ni* IIM protein [sequence].

Claim 10 (Currently amended). The expression vector of claim 7, wherein said expression vector is [a recombinant plasmid adapted for insertion into and transformation of] a plant expression vector.

Claim 20 (Currently amended). A transformed plant [,] comprising an expression vector, wherein said expression vector comprises a promoter operably linked to a nucleotide sequence [gene] encoding *Trichoplusia ni* invertebrate intestinal mucin (IIM) protein [operably linked to an expression sequence], such that said transformed plant expresses [is capable of expressing] said IIM protein.

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Claim 21 (Currently amended). A method of producing a *Trichoplusia ni* IIM protein [or peptide] comprising:

a) transforming a host cell with an expression vector comprising a promoter operably [operatively] linked to a nucleotide sequence which codes for [a predetermined protein or peptide of] a *Trichoplusia ni* IIM protein;

b) culturing said host cell under conditions such that said IIM protein is expressed [in a recoverable quantity];

c) lysing said host cell; and

d) recovering said IIM protein.

In claim 22, "a transfer molecule such as" has been deleted.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and After final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Amy Nelson, can be reached at (571) 272-0804.

2/14/04

Mai



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